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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/377,642	08/19/1999	MARC LESLIE COHEN	AT9-99-287	8153

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EXAMINER

TUNG, KEE M

ART UNIT	PAPER NUMBER
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2676

DATE MAILED: 04/30/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/377,642

Applicant(s)

COHEN ET AL.

Examiner

Kee M Tung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 March 2003 and 25 March 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 11-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 11-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

The amendments filed 3/10/03 and 3/25/03 have been considered in preparing this Office action.

As per claim 11, line 2, "the data processing system" should be --the method--.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 12-24 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noorbakhsh (5,699,498) in view of Rao (5,473,566).

Noorbakhsh teaches a method in a data processing system (computer system, col. 1, lines 13-14) for performing a raster operation (col. 1, line 30) of graphics data, wherein the data processing system includes a system memory (col. 1, line 31-32) and a video memory (36-37), wherein the system memory and the video memory are connected by a bus (system bus, col. 1, line 34, it is noted that the video memory is not directly connected to the system bus) and wherein the graphics data is organized into picture elements (array of pixels, col. 1, line 41), comprising selecting a first plurality of picture elements from the system memory and selecting a second plurality of picture elements from the video memory (it is noted that Noorbakhsh fails to explicitly suggest or teach "selecting a first and second plurality of pixels from the system and video

memories". Noorbakhsh suggests or teaches "reading data from source (system memory) and destination (video) memory areas" (col. 1, lines 25-27). In order to read data from the memory areas, Noorbakhsh must first selected the data and then read the selected data.), wherein "the first and second plurality of picture elements are selected such that changes in a direction of data on the bus are minimized when performing raster operations on the first and second plurality of picture elements." It is noted that in accordance with the present specification, page 12, lines 20-30, this is done by transferring a block of pixels (such as, a scan line) instead of one pixel at time. Noorbakhsh clearly suggests or teaches "bit boundary block transfer (BitBLT) engines are useful in VGA controller (graphics engine) for accelerating BitBLT operations. A BitBLT operation involves a block data transfer such as, moving a **rectangle of data** (such as, a scan line) from one area to another" (col. 1, lines 19-24)); reading the first and second plurality of picture elements from the system and video memories (col. 1, lines 25-27). However, Noorbakhsh fails to explicitly suggest or teach **performing a raster operation on a picture element** from the first and second plurality of picture elements to form a processed picture element (col. 1, lines 27-30); and writing the processed picture element to the video memory (col. 1, lines 30-31); and repeating the performing and writing steps for each picture element in the first and second plurality of picture elements until all picture elements have been processed. These are what Rao teaches. Rao teaches these are conventional bit block transfer techniques, where data is moved on a word-by-word or byte-by-byte basis instead of moving data an entire row of data at a time. It would have been obvious to one of ordinary skill in the art at the

time the present invention was made to combine the teachings of Rao into the system of Noorbakhsh because this is a conventional bit block transfer technique as taught by Rao and is considered well known and well use in the art at the time of invention. Rao further teaches an improve Bit block transfer technique by data movement of an entire row if data at a time (col. 7, lines 4 and 8-14). Therefore, at least claims 1-6, 12-24 and 30 would have been obvious by Noorbakhsh and Rao.

3. Claims 11, 25-29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noorbakhsh (5,699,498).

Noorbakhsh further teaches a method for performing raster operations in a graphics system, (col. 1, lines 24-31), comprising collecting memory accesses of video data into a batch of input operations (such as, read data from source and destination memory areas in blocks instead of single pixel) and output operations (such as, write block of data into destination memory) for each line (block of data); and send sending each batch of operations on a video bus (private bus by VGA controller, col. 1, lines 34-36) in a single operation (block data transfer, transfer a block of data in a single operation, col. 1, lines 21-22), wherein delays encountered by waiting for the video bus to change directions is minimized (eliminate read/write once for every pixel). Therefore, at least claims 11 and 29 would have been obvious.

Claim 25 is similar in scope to claim 11, and additionally requires collecting memory accesses of video data into batches of input (claim 25) and output (claim 26) operations substantially equal to a number of rasters in a video display which reads by

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grouping data into block and transfer and raster operates the received data in block (bit block transfer). Therefore, at least claims 25-28 and 31 would have been obvious.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-6 and 7-31 have been considered but are moot in view of the new ground(s) of rejection.

The rejections have been modified in order to fully considered applicant's arguments.

Regarding claims 11, 25-29 and 31, applicant argues that Noorbakhsh fails to teach collecting memory accesses of video data into batches (blocks) of input and output operations for each line and sending in a single operation. The features read by block data transfer operation of Noorbakhsh because instead of accessing memory for each bit or pixel, Noorbakhsh teaches access a block (or line) of data in a single access and transfer the block in a single operation. Therefore, applicant's arguments are not deemed to be persuasive.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

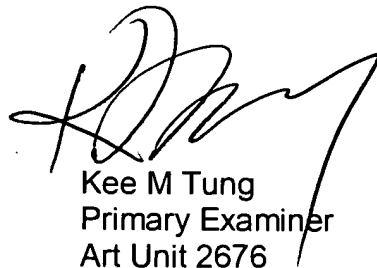
TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kee M Tung whose telephone number is 703-305-9660. The examiner can normally be reached on Tuesday - Friday from 6:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 703-308-6829. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

kmt  
April 28, 2003



Kee M Tung  
Primary Examiner  
Art Unit 2676